

## **REMARKS**

This Response responds to the Office Action dated March 24, 2006 in which the Examiner rejected claims 1, 5-7, 16, 22 and 26 under 35 U.S.C. 103.

Applicants would like to thank the Examiner for the personal interview on June 14, 2006.

Claim 1 claims a vehicle-mounted communication device comprising a transmitting/receiving means, a relay means, an information display means and an encryption information storage means. Transmitting/receiving means is provided for wireless communication of information with road-side communication means located at a road side. The relay means relays encryption information, received from the road side by the transmitting/receiving means, to an IC card and relays output information encrypted by the IC card to the transmitting/receiving means, in an undecoded state. The IC card includes a) storage means that stores user information regarding a user for charge-processing, b) encryption means that encrypts the output information which is based on the user information and outputs the encrypted output information, and that decodes encrypted input information relating to the user information, and c) output means that transmits a portion of the output information in a state without being encrypted. The information display means displays information. The encryption information storage means temporarily stores the encryption information. The transmitting/receiving means stores the encryption information in the encryption information storage means and transmits the encryption information stored in the encryption information storage means as it is. The information display means receives and displays the portion of the output

information, which is output from the output means in the state without being encrypted.

Through the structure of the claimed invention having a vehicle-mounted communication means including a) an information display means which displays the portion of the output information in the state without being encrypted and b) encryption information storage means, as claimed in claim 1, the claimed invention provides a vehicle-mounted communication device with improved security. The prior art does not show, teach or suggest the invention as claimed in claim 1.

Claims 1, 5-7, 16, 22 and 26 were rejected under 35 U.S.C. 103 as being unpatentable over *Hoshino et al.* (U.S. Patent 6,088,680).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, for reasons which will be set forth below, Applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issue.

*Hoshino et al.* appears to disclose an automatic toll adjustment system employing a storage medium having a radio communication function, which system enable automatic toll adjustment resulting in no ticket being issued or no stopping of the vehicle (column 1, lines 15-19). In Figure 1, reference numeral 2, denotes a frequency converting apparatus, and reference numeral 3 denotes a vehicle. The frequency converting apparatus 2 is mounted on the vehicle 3 traveling on a toll road. When the storage medium 1 is inserted therein, the frequency converting apparatus 2 converts information at a first predetermined frequency, supplied from the storage medium 1, into a second predetermined frequency to transmit it to the outside by radio communication. The frequency converting apparatus also converts

information at the second predetermined frequency, supplied from the outside, into the first predetermined frequency to transmit it to the storage medium 1 by radio communication (column 8, lines 1-12). Figure 3 shows a frequency converting apparatus 2 having the storage medium 1 inserted therein. The frequency converting apparatus 2 has a first communication means 2A and a second communication means 2B. (Column 15, lines 20-51). Figure 10 shows the structure of the on-vehicle apparatus (frequency converting apparatus 20), which is mounted on the vehicle 30. The on-vehicle apparatus 20 has a card communication unit (first communication means) 21 and antenna 22, an apparatus communication unit (second communication means) 24, and antenna 25 and a password inputting unit (a keyboard) 26 (column 49, line 27 through column 50 line 28).

Thus, *Hoshino et al.* merely discloses in Figures 1, 3 and 10 the structure of an on-vehicle apparatus 2. Nothing in *Hoshino et al.* shows, teaches or suggests an vehicle-mounted communication device including a) an information display means that displays non-encrypted information and b) an encryption information storage means in which encryption information is temporarily stored as claimed in claim 1. Rather, *Hoshino et al.* merely discloses in Figures 3 and 10 an on-vehicle apparatus 2 having first and second communication means, antennas and a password inputting unit.

Applicants respectfully traverse the Examiner's statement that Figures 12 and 36 of *Hoshino et al.* show an information display means. Figure 12 in *Hoshino et al.* is directed to a settling apparatus and is not directed to a vehicle-mounted communication device as claimed in claim 1. Furthermore, Figure 36 of *Hoshino et al.* shows a screen for an inquiring apparatus which is shown in Figure 17. Thus,

nothing in *Hoshino et al.* shows, teaches or suggests an information display means provided in a vehicle-mounted communication device claimed in claim 1.

Furthermore, Applicants respectfully traverse the Examiner's statement that the encryption information storage means is found in Figure 9. Figure 9 of *Hoshino et al.* shows the radio card and not the vehicle-mounted communication device.

Nothing in *Hoshino et al.* shows, teaches or suggests that the frequency converting apparatus 2 found in Figures 2, 3 and 10 include an encryption information storage means in which encryption information is temporarily stored as claimed in claim 1.

Finally, nothing in *Hoshino et al.* shows, teaches or suggests the information display means displays non-encrypted information (i.e., displays a portion of the output information, from the output means of the IC card, in a state without being encrypted) as claimed in claim 1.

Since nothing in *Hoshino et al.* shows, teaches or suggests a vehicle-mounted communication device including a) an encryption information storage means temporarily storing encryption information and b) information display means displaying non-encrypted information output by the IC card as claimed in claim 1, Applicants respectfully request the Examiner withdraws the rejection to claim 1 under 35 U.S.C. §103.

Claims 5-7, 16, 22 and 26 depend from claim 1 and recited additional features. Applicants respectfully submit that claims 5-7, 16, 22 and 26 would not have been obvious within the meaning of 35 U.S.C. §103 at least for the reasons as set forth above. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 5-7, 16, 22 and 26 under 35 U.S.C. §103.

Thus, it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.


In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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